



Construction Coordination Agreement with Toronto Hydro

Date:	April 20, 2016
To:	Public Works & Infrastructure Committee
From:	Deputy City Manager, Cluster B
Wards:	All Wards
Reference Number:	P:\2016\Cluster B\MCIC\PW16001

SUMMARY

This report seeks authority for the Deputy City Manager, Cluster B, to execute a Construction Coordination Agreement (the "Agreement") with Toronto Hydro Electric System Limited ("Toronto Hydro"). The Agreement will permit the City to relocate or replace Toronto Hydro assets that are affected by, or might act as an impediment to, City construction projects.

The Agreement will have incremental costs and cost-sharing implications for the City. The nature of these additional costs is explained in the Financial Impact and Comments sections of this report.

In summary, approval of this report will permit City staff to:

- a. Initiate inspections of Toronto Hydro infrastructure, and quickly obtain permission from Toronto Hydro to relocate or replace Toronto Hydro assets that are affected by City construction;
- b. Plan the restoration or replacement of Toronto Hydro infrastructure as part of the scope of City construction, thereby achieving more efficient infrastructure planning, more effective construction management, and avoidance of excessive construction disruption; and
- c. Incur the incremental cost to design and construct Toronto Hydro infrastructure in accordance with the cost-sharing formula prescribed in the Agreement.

City staff will monitor the effectiveness of the Agreement in achieving the preceding goals, including value-for-money. Improvements to the terms of the Agreement that may benefit the City and Toronto Hydro, and ultimately the public, will be implemented as experience is gained by both parties in fulfilling their respective obligations.

RECOMMENDATIONS

The Deputy City Manager, Cluster B, recommends that City Council:

1. Authorize the Deputy City Manager, Cluster B, to negotiate and execute a Construction Coordination Agreement on terms similar to those outlined in this report and in a form that is acceptable to the City Solicitor;
2. Authorize the General Manager of Transportation Services, the General Manager of Toronto Water, and the Executive Director of Engineering and Construction Services, to ensure that construction budgets for capital projects reflect the cost to protect, restore or replace Toronto Hydro assets that will be incorporated in City construction projects under the process set out in the Construction Coordination Agreement;
3. Authorize the General Manager, Transportation Services, the General Manager, Toronto Water, and the Executive Director, Engineering and Construction Services, to negotiate and execute Project Specific Agreements in accordance with the Construction Coordination Agreement in a form that is acceptable to the City Solicitor;
4. Authorize the Director, Major Capital Infrastructure Coordination to amend and update the Schedules to the Construction Coordination Agreement from time-to-time;
5. Authorize the Executive Director, Policy, Planning, Finance and Administration to implement a cost-recovery model, including billing and collection procedures, to ensure the timely exchange of funds between the City and Toronto Hydro arising from the Construction Coordination Agreement; and
6. Authorize the Director, Major Capital Infrastructure Coordination to monitor the effectiveness of the Construction Coordination Agreement, and recommend steps that may be taken by the City and Toronto Hydro to promote compliance and achieve the stated objectives of the Construction Coordination Agreement.

Financial Impact

The design and construction of capital projects by the City in the municipal right-of-way and on other City property often creates unplanned costs for Toronto Hydro and other utilities that are impacted by the City's work. Utilities may be required to accelerate the repair or replacement of their assets, and to relocate assets that lie in conflict with new or expanded City infrastructure.

The Public Service Works on Highways Act (the "Act") provides general guidelines for: (i) relocating utility infrastructure in the municipal right-of-way when required for improvement of a roadway; and (ii) sharing costs arising from that work.

The Construction Coordination Agreement with Toronto Hydro that is the subject of this staff report, expands upon existing capital planning and cost-sharing protocols and guidelines including those in the Act. It explicitly permits the City to initiate, design and perform work on Toronto Hydro's assets as an integral component of City-sponsored capital projects. As a result, the City will be in a position to expedite construction and minimize disruption associated with a wide range of capital projects.

The Construction Coordination Agreement acknowledges that some of the costs incurred by Toronto Hydro will be the result of choices made by the City with respect to the timing and scope of work on Toronto Hydro's assets. Accordingly, some of the incremental costs arising from City-sponsored work will be borne by the City, and reflected in the appropriate capital or operating budgets.

The incremental costs will vary on every project depending on the age, condition and extent of work that must be performed on Toronto Hydro's infrastructure. As a general guide, the City's share of Toronto Hydro-related costs could add \$3,000 to \$5,000 to the cost of each City-sponsored capital project. This cost would be offset by savings that accrue to the City through more certain construction staging and timing. The public will also benefit from more effective work zone coordination and less construction disruption.

In return for having the City undertake the design and/or construction of Toronto Hydro infrastructure, Toronto Hydro will compensate the City for the City's internal design and project management costs by means of a charge of up to 18.3% on Toronto's Hydro's share of costs for each project (9.15% for design work undertaken by the City and 9.15% for construction work undertaken by the City, as applicable). This is the same fee charged to other third parties when the City undertakes design and construction on their behalf.

The Deputy City Manager & Chief Financial Officer has reviewed this report and agrees with the financial impact information

DECISION HISTORY

There is no decision history relevant to this matter.

ISSUE BACKGROUND

The City invests hundreds of millions of dollars annually on capital construction within the municipal right-of-way. Projects that expand and extend the City's network of linear infrastructure, and which repair or replace existing plant and equipment, are initiated by several City divisions, most notably Toronto Water and Transportation Services. Engineering and

Construction Services is responsible for the design and construction of most of the City's projects.

The municipal right-of-way is also congested with infrastructure which is owned and operated by numerous external organizations (e.g., Toronto Transit Commission, Toronto Hydro, public utilities and telecommunications companies). The intersection of these complex networks has implications for repair, replacement and relocation of infrastructure across the city. The biggest challenges arise when the owner of one asset undertakes state-of-good-repair or capital expansion, triggering physical and operational impacts on the intersecting and overlapping assets of other organizations.

The City has dramatically improved capital coordination among City divisions and external organizations. Manual and automated procedures are now used to bundle and schedule work to be performed by different organizations at the same location. The coordination procedures also minimize the risk that work on adjoining roads will be performed by different organizations at the same time. The net result is a reduction in the extent and duration of congestion caused by concurrent and consecutive construction projects.

Along with improvements in capital coordination that have been achieved in the past few years, the City continues to pursue new opportunities to coordinate with greater efficiency and effectiveness. One immediate opportunity involves integrating the City's capital program with work on Toronto Hydro assets that will be impacted by the City's construction.

Under the process set out in the Public Service Works on Highways Act, the City currently notifies Toronto Hydro of the need to relocate its infrastructure in the municipal right-of-way, or if it will be affected by the City's construction. Toronto Hydro is then responsible for the design and construction required to repair, relocate or replace the affected assets, with costs apportioned in accordance with the Act.

While this process can work, certain types of construction projects performed by the City are not always delivered effectively because the City has a limited ability to influence the timing or scope of work that must be performed by Toronto Hydro. Typical examples of inefficiencies that represent a drag on the City's capital program include the following:

- a. Detailed design of the City's projects may be delayed while the City waits for Toronto Hydro to inspect its assets that are situated within the work zone of those projects;
- b. The construction period of the City's projects may be extended while waiting for Toronto Hydro to relocate or restore its infrastructure; and
- c. The streetscape may require post-construction repair if the City decides to work around Toronto Hydro to complete the majority of its work without waiting for Toronto Hydro to meet its obligations.

COMMENTS

Staff in both organizations reviewed the full spectrum of our working relationship, and specifically the coordination of our capital programs. Out of this exercise we developed a protocol that will allow the City to perform certain types of work on behalf of Toronto Hydro.

This protocol will be set out in a Construction Coordination Agreement that contains the basic terms and conditions governing the inclusion of Toronto Hydro infrastructure work in City projects. What follows is a description of that protocol.

Planning and Coordination

The City and Toronto Hydro will regularly review the City's five-year coordinated capital plan to identify the City's construction projects that can be expected to impact Toronto Hydro's infrastructure. Toronto Hydro, in turn, will identify details of its capital program that involve expansions, enhancements and replacements of Toronto Hydro infrastructure within the municipal right-of-way. The commitment to regular communication will facilitate effective coordination.

When the City and Toronto Hydro determine that it is appropriate to include work on Toronto Hydro's assets in a City construction project, the City will obtain a scope of work package from Toronto Hydro. That scope will be specified in writing in a Project Specific Agreement, which incorporates the terms of the Construction Coordination Agreement.

Under the delegation of authority sought in this report, the Project Specific Agreement may be executed by either: (i) the General Manager of Transportation Services; (ii) the General Manager of Toronto Water; or (iii) the Executive Director of Engineering and Construction Services, depending on which division is responsible for delivering the construction project in question.

In some cases, the parties may authorize the City to undertake both the design and construction of the Hydro work, while in other circumstances the parties may elect to have Toronto Hydro perform the design, which would be included in the City's construction contract. The Construction Coordination Agreement would allow the relevant division head to include only the relevant construction terms of the Construction Coordination Agreement in the Project Specific Agreement, if appropriate in the circumstances, in consultation with Legal Services.

Design and Construction Contractors

Because Toronto Hydro requires all of its work to be performed by pre-qualified design consultants and construction contractors, the City will retain only those pre-qualified consultants and contractors for Toronto Hydro work that is included in the City's contract.

If the City's design consultant and/or construction general contractor are not pre-approved by Toronto Hydro, the City's consultants and contractors will be required to subcontract the relevant Hydro work to a pre-qualified consultant and/or contractor. The current list of pre-qualified consultants and contractors will be attached as a schedule to the Construction Coordination

Agreement, and updated regularly.

Any contracts procured by the City that include Toronto Hydro work will include Toronto Hydro's standard insurance and warranty requirements, and applicable instructions for design and/or construction work, which will be appended to the Construction Coordination Agreement and updated from time to time in accordance with the delegation of authority sought in this report.

Construction Management and Inspection

The City will carry out the project management and administrative requirements for design and/or construction of the Toronto Hydro components from commencement to final completion including procurement, and determining the means and methods for completing the Toronto Hydro work alongside its own.

The City will ensure that the Toronto Hydro components are completed in compliance with the Construction Coordination Agreement and Project Specific Agreements. No changes to the Toronto Hydro components, by amendment of the Project Specific Agreements, will be undertaken without the written approval of both parties.

Toronto Hydro will review, inspect and approve all Toronto Hydro components and perform those tasks necessarily related to reviewing and approving the drawings, materials, plans and work, such as validating field-installed materials, testing, engaging in control authorization and system operations.

Toronto Hydro will identify and require any third parties occupying or attached to Toronto Hydro plant to relocate equipment in accordance with any agreement between Toronto Hydro and the third party, with such identification and notification to be included as part of the Project Scope Package, and to be completed by Toronto Hydro on a commercially-reasonable basis.

Liability and Indemnity

Because the City will be taking charge of the construction of Toronto Hydro infrastructure, Toronto Hydro requires the City to indemnify Toronto Hydro for any damage to Toronto Hydro property and any third party claims caused by the negligence or willful misconduct of the City or its contractors. Toronto Hydro will equally indemnify the City for damages directly caused by the negligence or willful misconduct of Toronto Hydro or any of its representatives. Neither party will be liable to the other for indirect, consequential incidental or special damages.

Cost

The cost of the Toronto Hydro work will be apportioned between the two parties depending on the type of work.

The City will incorporate the full cost of the Toronto Hydro component of each project into its budget and contract, and be reimbursed by Toronto Hydro for Toronto Hydro's share. Toronto

Hydro will be required to provide a purchase order for the estimated cost of Toronto Hydro's share of work, but it is the actual cost that will be apportioned by the parties.

Where Toronto Hydro plant must be relocated for the purposes of a City project, the parties will apportion the cost generally in accordance with the formula set out in the Public Services Works on Highways Act; namely the City and Toronto Hydro will share equally the cost of labour and labour-saving equipment, and Toronto Hydro will be responsible for all other costs. To facilitate this agreement, the City has also agreed to assume an equal apportionment of Toronto Hydro's labour costs relating to design work, inspection and audit, control authority, and system operation that are incurred as a result of the City's project.

Where a relocation of Toronto Hydro infrastructure requires the replacement or upgrade of the infrastructure to meet current Toronto Hydro standards, the apportioned cost will be based on that standard. Where the relocation can be implemented with existing Toronto Hydro infrastructure or with repairs to that infrastructure (at the discretion of Toronto Hydro) the cost apportionment will be based on a like-for-like basis.

Where the City requires a relocation of Toronto Hydro infrastructure, but the City wants the relocation to be to a different or higher standard than Toronto Hydro would typically perform, the cost of relocation to the typical standard will be apportioned in the same manner as with other relocations, but the City will be responsible for paying 100% of the difference between the typical standard and the different or higher standard. An example of this type of work would be a request by the City for Toronto Hydro's infrastructure to be relocated underground instead of above ground for aesthetic purposes, or where space constraints caused by the City's project mean that Toronto Hydro infrastructure can only be relocated underground even if not requested by the City. In these cases, the City would be responsible for 100% of the differential between the cost to relocate to a different above-ground location and the cost to relocate underground.

Where Toronto Hydro requests the inclusion of work in a City project that is not required for the City project (e.g. expansion or upgrading of Toronto Hydro infrastructure), Toronto Hydro will be responsible for 100% of the costs.

Where a City project requires the relocation of street lighting assets owned by Toronto Hydro, cost allocation will be governed by the existing 2006 agreement between the City and Toronto Hydro Street Lighting Inc. (THESI).

In return for having the City undertake the design and/or construction of Toronto Hydro infrastructure, Toronto Hydro will compensate the City for the City's internal design and project management costs by means of a charge of up to 18.3% on Toronto's Hydro's share of costs for each project (9.15% for design work undertaken by the City and 9.15% for construction work undertaken by the City, as applicable). This is the same fee charged to other third parties when the City undertakes design and construction on their behalf.

Term

The Construction Coordination Agreement will have a term of five years from the date of the

agreement. After five years, the parties will determine if they wish to renew the Agreement. City staff will report to City Council with a recommendation on whether the Construction Coordination Agreement should be renewed and on what terms.

CONCLUSION

The delegated authority to enter into a Construction Coordination Agreement with Toronto Hydro will have immediate and tangible benefits for both parties. It will provide a new measure of control over the scope, schedule and cost of capital projects initiated by the City, where those projects involve the repair, relocation or replacement of Toronto Hydro's infrastructure. The Construction Coordination Agreement, and subsidiary Project Specific Agreements, will streamline capital planning, design and construction of joint work in the municipal right-of-way. The minimal incremental cost that will be borne by the City in each construction project will be offset by reduced project delivery risks and costs, and the benefits of expedited construction.

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SIGNATURE

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